US006563302B1

(12) **United States Patent**
Raposa et al.

(10) **Patent No.: US 6,563,302 B1**
(45) **Date of Patent: *May 13, 2003**

(54) **DEVICE FOR SENSING PROJECTILE VELOCITY IN AN UNDERWATER ENVIRONMENT**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/565,243**

(22) Filed: **Apr. 28, 2000**

(51) **Int. Cl.**[7] **G01P 3/66**
(52) **U.S. Cl.** **324/179**
(58) **Field of Search** 324/179, 178; 73/167; 346/38

(56) **References Cited**

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(57) **ABSTRACT**

A device for sensing projectile velocity in an underwater environment is provided. The device includes a plurality of evenly spaced voltage coil members positioned in the path of a projectile. Each voltage coil member includes a support frame having an opening therein and a magnetic coil mounted on the support frame, and a sensing member connected to each support frame. The sensing member includes means for outputting a signal responsive to passage of the projectile through the voltage coil member, and a logic arrangement for determining a difference between passage of the projectile between adjacent ones of said plurality of voltage coil members throughout the run thereof, thereby determining a velocity of the projectile.

19 Claims, 3 Drawing Sheets